

ABSTRACT OF THE DISCLOSURE

A method for controlling anomalous dual state of duplicated processors for a fault-tolerant system having a first and a second processors that are connected to each other through network, comprising: a first step of transmitting its own state information of either the first or the second processor to mutually another processor (twin) by using different transmission period to each other; a second step of receiving the heartbeat applied from the other processor and recognizing state information of the twin; and a third step of performing duplication states according to the state information of the twin. By doing that, when the two processors start, the seeds for random numbers are differently allocated to generate different random numbers, and the heartbeat transmission period is continuously changed by using the random numbers to differentiate the transmission and receiving time of the heartbeat between the two processors. Therefore, an anomalous dual state transition, that is, a state fluctuation phenomenon that dual ACTIVE and dual STANDBY are repeatedly performed that may occur in concurrently receiving the heartbeat by two processors, can be prevented from occurring.